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Oakes

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(54) **SYSTEM AND METHOD FOR HOLDING CUTLERY TOGETHER**

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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

46,832	A	3/1865	Thorpe
592,105	A	10/1897	Barnes
D32,913	S	7/1900	Graf et al.
703,718	A	7/1902	Cammann
716,058	A	12/1902	Lang et al.
925,485	A	2/1909	Lafler
999,837	A	8/1911	Morris et al.
1,053,387	A	2/1913	Hawley
1,146,447	A	7/1915	Prommel
1,182,793	A	5/1916	Richardson
1,259,927	A	3/1918	Swift
1,261,835	A	4/1918	Martin
1,353,109	A	9/1920	Carr
1,355,583	A	10/1920	Zeidler et al.
1,482,071	A	1/1924	Duff et al.
1,497,585	A	6/1924	Poole
1,504,098	A	8/1924	Cathey
1,546,077	A	7/1925	Hunter et al.
1,547,151	A	7/1925	Watling
1,560,938	A	11/1925	Lund
1,577,302	A	3/1926	Schultz

(Continued)

FOREIGN PATENT DOCUMENTS

CA	2545745	A1	11/2006
CN	2865478	Y	2/2007

(Continued)

OTHER PUBLICATIONS

JP2004261336 translation; Matsushima et al, Sep. 24, 2004.*

(Continued)

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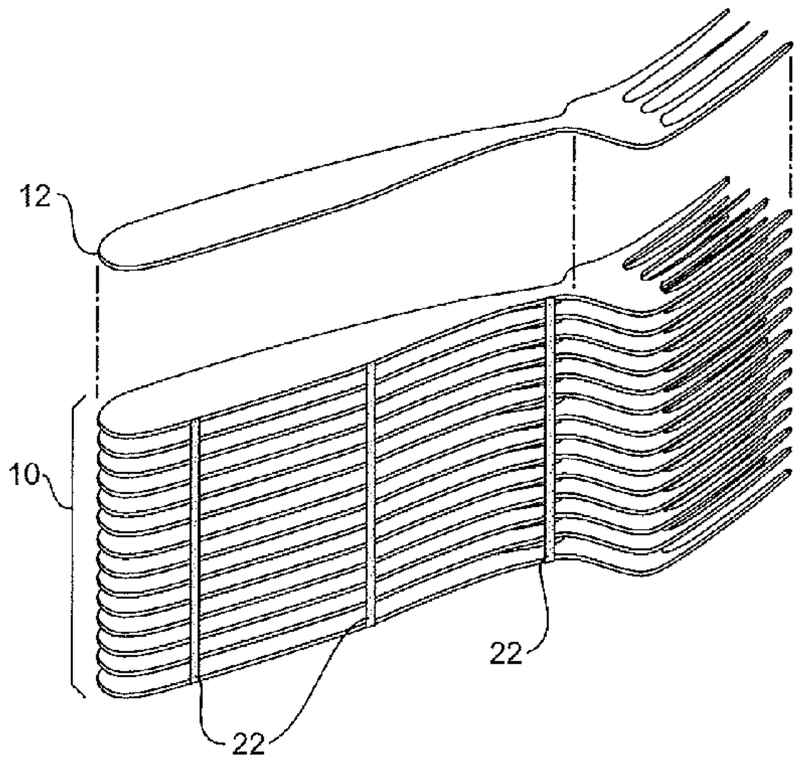
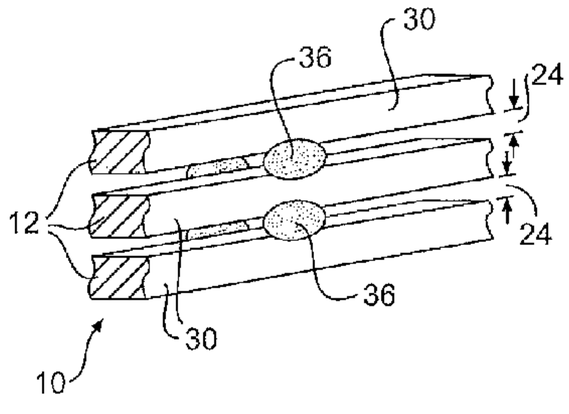
(57) **ABSTRACT**

A module of cutlery may include a plurality of utensils that include a formable material, wherein at least two of the utensils are separably coupled to one another via at least one of an adhesive and a common portion of the formable material.

10 Claims, 5 Drawing Sheets





(56) **References Cited**

U.S. PATENT DOCUMENTS

1,610,001	A		12/1926	Foster
1,635,386	A		7/1927	Pierson
1,675,510	A		7/1928	Nolan
1,767,634	A		6/1930	Weiss
1,821,377	A		9/1931	Cusick
1,886,378	A		11/1932	Dearsley
1,936,057	A		11/1933	Hodge
2,052,505	A		8/1936	Vetrosky
2,053,828	A		9/1936	Harper
2,078,984	A		5/1937	Williamson
2,089,378	A		8/1937	Jenkin
2,110,189	A		3/1938	Zeidler, Sr.
2,141,684	A		12/1938	Diemer
2,149,098	A		2/1939	Phinney
2,149,099	A		2/1939	Phinney et al.
2,160,374	A		5/1939	Veillette
2,184,029	A		12/1939	Wicklund
2,188,573	A		1/1940	Longo
D119,760	S		4/1940	Kopp
2,207,528	A		7/1940	Witt
2,223,347	A		12/1940	Axthelm
2,239,196	A		4/1941	Lunvik
2,246,852	A		6/1941	Kale
2,260,596	A		10/1941	Young
2,268,596	A		1/1942	Jerum
2,268,873	A		1/1942	Hopkins et al.
2,328,486	A		8/1943	Painter
2,340,561	A		2/1944	Renfro
2,421,782	A		6/1947	Gibbs et al.
2,427,321	A		9/1947	Casey et al.
2,431,121	A		11/1947	Hunter
2,433,736	A		12/1947	Carew
2,445,026	A		7/1948	Frank
2,472,051	A		5/1949	Testi
2,497,718	A		2/1950	Earley et al.
2,503,741	A		4/1950	Johnson
2,526,136	A		10/1950	Holzknecht
2,571,668	A		10/1951	Booth et al.
2,577,344	A		12/1951	Masure
2,624,093	A		1/1953	Hatch et al.
2,635,025	A		4/1953	Ziska
2,646,874	A		7/1953	Testi
2,651,093	A		9/1953	Lynch
2,671,555	A		3/1954	Shnitzler
2,692,691	A		10/1954	Harriss et al.
2,695,125	A		11/1954	Bowen
2,752,678	A	*	7/1956	Welch 30/324
2,800,013	A		7/1957	George
2,806,634	A		9/1957	Baumgartner
2,843,909	A		7/1958	Eilertsen
2,845,679	A		8/1958	Baruch
2,857,645	A		10/1958	Vogelsang
2,868,344	A		1/1959	Shields
2,870,505	A		1/1959	Hawie
2,877,490	A		3/1959	Greninger
2,877,926	A		3/1959	Abbe
2,880,907	A		4/1959	Mainers
2,889,076	A		6/1959	Van Schie
2,907,512	A		10/1959	Leone
2,911,127	A		11/1959	Driss et al.
2,924,357	A		2/1960	Kingsley et al.
2,946,431	A		7/1960	Nissen
2,946,481	A		7/1960	Carew
2,953,170	A		9/1960	Bush
2,954,948	A		10/1960	Johnson
2,965,262	A		12/1960	Du Bois
3,037,257	A		6/1962	Girodet
3,052,006	A		9/1962	Jonas
3,083,879	A		4/1963	Coleman
3,095,114	A		6/1963	Tobias
3,100,842	A		8/1963	Tellefsen
3,114,475	A		12/1963	Etes
3,116,152	A		12/1963	Smith
3,132,765	A		5/1964	Florendo
3,146,908	A		9/1964	Perri et al.
3,163,327	A		12/1964	Maxwell
3,180,489	A		4/1965	McGinn
3,182,345	A		5/1965	Smith
3,191,802	A		6/1965	Lasting
3,263,860	A		8/1966	Haas
3,279,652	A		10/1966	Willvonseder
3,300,087	A		1/1967	Kuypers
3,310,271	A		3/1967	King
3,313,452	A		4/1967	Katz
3,334,784	A		8/1967	Morrison
3,338,471	A		8/1967	De Good
3,371,821	A		3/1968	Abood, Jr. et al.
3,383,018	A		5/1968	Grimsley
3,400,435	A		9/1968	Akesson-Rydin
3,402,441	A		9/1968	Woskin
3,407,927	A		10/1968	Jones
3,408,708	A		11/1968	Hawie
3,426,941	A		2/1969	Hovekamp
3,435,491	A		4/1969	Shears
3,472,421	A		10/1969	Baller
3,499,538	A		3/1970	Sherard
3,558,006	A		1/1971	Redmond et al.
3,587,922	A		6/1971	Oriti
3,593,908	A		7/1971	Desmond et al.
3,654,396	A		4/1972	Biezeveld
3,680,736	A		8/1972	Viessmann
3,710,535	A		1/1973	Walter
3,741,410	A		6/1973	Henschke et al.
3,747,803	A		7/1973	Zoepf et al.
3,786,959	A		1/1974	Greb et al.
3,851,762	A		12/1974	Liblick
3,861,563	A		1/1975	Lisbin
3,862,702	A		1/1975	Johnson
3,897,886	A		8/1975	Franklin
3,932,978	A		1/1976	Kinney
3,944,128	A		3/1976	Hogan et al.
3,972,118	A		8/1976	Richard
3,987,901	A		10/1976	Dullinger
3,998,238	A		12/1976	Nigro
4,005,801	A		2/1977	Musser et al.
4,043,203	A		8/1977	Montesi
4,048,915	A		9/1977	Martin
4,091,915	A		5/1978	Claasen
4,120,662	A		10/1978	Fosslien
4,134,519	A		1/1979	Barnett et al.
4,146,123	A		3/1979	Cottrell
4,271,999	A		6/1981	Stravitz
4,288,003	A		9/1981	Fries
4,308,974	A		1/1982	Jones
4,317,284	A	*	3/1982	Prindle 30/340
4,382,514	A		5/1983	Williams et al.
4,489,854	A		12/1984	Wenkman et al.
4,524,512	A	*	6/1985	Formo et al. 30/147
4,570,536	A		2/1986	Dodd
4,571,773	A		2/1986	Yuda
4,574,423	A		3/1986	Ito et al.
D284,442	S		7/1986	Chan
4,601,386	A		7/1986	Antonello
4,610,087	A		9/1986	Mickelson et al.
4,614,004	A		9/1986	Oshida
4,624,616	A		11/1986	Freese et al.
4,638,921	A		1/1987	Sigl et al.
4,662,536	A		5/1987	Powers
4,666,037	A		5/1987	Weissman et al.
4,666,060	A		5/1987	Bouldin
4,691,811	A		9/1987	Arakawa et al.
4,697,673	A		10/1987	Omata
4,707,251	A		11/1987	Jenkins
4,715,514	A		12/1987	Vidondo
4,789,064	A		12/1988	Segal
4,793,539	A		12/1988	Haenni et al.
4,835,864	A	*	6/1989	Tang 30/150
4,863,033	A		9/1989	Buj
4,884,718	A		12/1989	Leahy
D305,709	S		1/1990	Blignaut
4,896,792	A		1/1990	Marchand
4,915,578	A		4/1990	Becker
4,921,106	A		5/1990	Spatafora et al.
4,950,120	A		8/1990	Barnes

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,961,684	A		10/1990	Provan et al.
4,963,072	A		10/1990	Miley et al.
RE33,447	E		11/1990	Rosman
4,973,037	A		11/1990	Holbrook
4,986,442	A		1/1991	Hinterreiter
4,989,730	A		2/1991	Lemoine et al.
4,995,154	A		2/1991	Bamber
5,012,927	A		5/1991	Borst et al.
D318,600	S		7/1991	Lillelund et al.
5,054,640	A		10/1991	Tucker et al.
5,054,649	A		10/1991	Lemaire et al.
5,064,093	A		11/1991	Davis et al.
5,080,257	A		1/1992	Carnisio
5,127,546	A		7/1992	Chen
5,131,586	A		7/1992	Capy
5,156,266	A		10/1992	Sykora et al.
5,161,268	A		11/1992	Harrow
5,176,494	A		1/1993	Nigrelli et al.
5,191,997	A		3/1993	Squitieri
5,199,756	A	*	4/1993	Bartlett et al. 294/16
5,211,267	A		5/1993	Clark
5,249,705	A		10/1993	Gates
5,263,596	A		11/1993	Williams
D342,648	S		12/1993	Cautereels et al.
5,269,397	A		12/1993	Kawamoto et al.
5,305,875	A		4/1994	Meyer et al.
5,325,992	A		7/1994	Koller et al.
5,327,650	A		7/1994	Rojas
D351,085	S		10/1994	Schmidt
5,353,935	A		10/1994	Yeager et al.
5,364,016	A		11/1994	Capy et al.
5,413,317	A		5/1995	Spoerre
D362,160	S		9/1995	Brabeck et al.
5,449,054	A		9/1995	Wiese et al.
5,460,252	A		10/1995	Kosugi et al.
5,469,688	A		11/1995	Dunbar et al.
5,479,708	A		1/1996	Thomas
5,497,863	A		3/1996	Schmidt et al.
5,509,522	A		4/1996	Laidlaw
5,518,149	A		5/1996	Lotspeich et al.
5,542,508	A		8/1996	Van Erden et al.
5,564,594	A		10/1996	Monfredo
5,579,910	A		12/1996	Bennett
5,586,685	A		12/1996	Dorner et al.
5,590,472	A		1/1997	Yaakov
5,605,208	A		2/1997	Friedrichsen et al.
5,660,252	A		8/1997	Lafon
5,762,211	A		6/1998	Ensign
5,845,403	A		12/1998	Nivin
5,853,092	A		12/1998	Goodman et al.
5,904,250	A	*	5/1999	De Schutter 206/553
5,921,408	A		7/1999	Groenewold et al.
5,933,918	A		8/1999	Wallays
5,950,842	A		9/1999	Bauer
5,961,021	A		10/1999	Koike et al.
D420,887	S		2/2000	Chen
6,023,908	A		2/2000	Vetsch
6,023,913	A		2/2000	Gray et al.
D422,431	S		4/2000	Goins
6,047,830	A		4/2000	Chang
6,062,424	A		5/2000	Simile-Gravina et al.
6,073,795	A		6/2000	Longstreth
6,085,916	A		7/2000	Kovacevic et al.
6,098,379	A		8/2000	Spatafora et al.
6,115,921	A		9/2000	Garneau
6,134,790	A		10/2000	Watson
6,202,891	B1		3/2001	Mark
6,226,845	B1		5/2001	Fink
6,250,495	B1		6/2001	Bando
6,250,498	B1		6/2001	Lovejoy
6,289,889	B1		9/2001	Bell et al.
6,298,960	B1		10/2001	Derr
6,378,729	B1		4/2002	Kodama
D458,070	S		6/2002	Bennett et al.
6,399,079	B1		6/2002	Mehta et al.
6,412,398	B1		7/2002	Norcross et al.
6,415,465	B1		7/2002	Harrow
6,575,313	B1		6/2003	Chen
6,626,633	B2		9/2003	Jendzurski et al.
6,651,841	B2		11/2003	Tsuchida
6,749,074	B1		6/2004	Hileman et al.
D492,549	S		7/2004	Welch
D493,337	S		7/2004	Welch
6,763,972	B2		7/2004	Graupner
6,786,357	B2		9/2004	Renard
6,786,359	B1		9/2004	Schroeder
6,832,694	B2		12/2004	Goeking et al.
6,832,698	B1		12/2004	Dybul
6,837,028	B1		1/2005	Miano et al.
6,840,353	B2		1/2005	Arisaka
6,840,420	B1		1/2005	Hudson
6,880,211	B2		4/2005	Jackson et al.
6,945,427	B2		9/2005	Hieb
6,972,033	B2		12/2005	McNicholas
6,976,348	B1		12/2005	Miano et al.
7,013,568	B2		3/2006	Schmidt
7,076,932	B2		7/2006	Rubin
7,090,455	B2		8/2006	Lamb
7,111,369	B2		9/2006	Ho
D533,034	S		12/2006	Wasserman
D536,222	S	*	2/2007	Heiberg et al. D7/645
7,204,406	B2		4/2007	Bone et al.
7,210,279	B1		5/2007	Ahmed et al.
7,249,793	B1	*	7/2007	Jabr 294/16
7,258,233	B2		8/2007	Lee et al.
7,322,172	B2		1/2008	Hoffman et al.
D564,819	S		3/2008	Fosburg et al.
7,412,808	B2		8/2008	Lavi
7,434,692	B2		10/2008	Ginsberg et al.
D591,104	S		4/2009	Oakes
7,513,089	B2		4/2009	Rubin
7,516,831	B2		4/2009	Chang
7,520,247	B2		4/2009	Rutledge
7,669,256	B2		3/2010	Harrow
7,716,842	B2		5/2010	Sumner-Trivisani et al.
7,731,899	B2		6/2010	Talmer et al.
7,819,234	B2		10/2010	Herzog
7,856,722	B2		12/2010	Lago-Arenas
D631,337	S		1/2011	Prevost
8,070,013	B2		12/2011	Reinsel et al.
8,083,058	B2		12/2011	Marcinkowski et al.
8,083,097	B2		12/2011	Kaufman et al.
8,152,004	B2		4/2012	Smith et al.
8,272,533	B1		9/2012	D'Amelia
8,296,957	B2	*	10/2012	Muehlemann 30/142
8,297,473	B2		10/2012	Smith
8,302,269	B2		11/2012	Pitman
8,360,273	B2		1/2013	Reinsel et al.
8,480,954	B2		7/2013	Talmer et al.
8,776,379	B2		7/2014	Walters et al.
8,839,522	B2		9/2014	Walters et al.
8,844,798	B2		9/2014	Linkel
9,439,518	B2		9/2016	Oakes
9,560,920	B2		2/2017	Oakes
D783,303	S		4/2017	Roche
D788,485	S		6/2017	Greenwald et al.
2001/0007308	A1		7/2001	Glassman et al.
2001/0025856	A1		10/2001	Lefevre Du Grosriez et al.
2002/0112445	A1		8/2002	Scaduto
2003/0015399	A1		1/2003	Bennett
2003/0015824	A1		1/2003	Forbes et al.
2003/0098344	A1		5/2003	Blake et al.
2003/0146061	A1		8/2003	Tournier
2004/0045398	A1		3/2004	Hayashi
2004/0045860	A1		3/2004	Edgerly et al.
2004/0089670	A1		5/2004	Goeking et al.
2004/0237311	A1	*	12/2004	Brown et al. 30/141
2005/0034310	A1		2/2005	Conforti
2005/0035136	A1		2/2005	Dathe et al.
2005/0082307	A1		4/2005	Tucker
2005/0116482	A1	*	6/2005	Harris 294/1.1
2005/0155186	A1		7/2005	McGuyer et al.
2005/0155229	A1		7/2005	Lee
2005/0211722	A1		9/2005	Runnels

(56) **References Cited**

U.S. PATENT DOCUMENTS

2005/0224531	A1	10/2005	Bulovic	
2005/0230222	A1	10/2005	Olson et al.	
2005/0252057	A1	11/2005	Lavi	
2006/0000190	A1	1/2006	Behnke et al.	
2006/0042986	A1	3/2006	Simkowski et al.	
2006/0053638	A1	3/2006	Sumner-Trivisani et al.	
2006/0218795	A1	10/2006	Santa Cruz et al.	
2006/0249531	A1	11/2006	Litchfield et al.	
2007/0035943	A1	2/2007	Wang	
2007/0108141	A1	5/2007	Smith et al.	
2007/0131705	A1	6/2007	Behravesh et al.	
2007/0193968	A1*	8/2007	Smith et al.	211/70.7
2007/0214650	A1	9/2007	Tomazini	
2007/0250391	A1	10/2007	Prade et al.	
2008/0118609	A1	5/2008	Harlfinger et al.	
2008/0121650	A1	5/2008	Smith	
2008/0128445	A1	6/2008	Huang et al.	
2009/0194557	A1	8/2009	Van Deursen	
2009/0200315	A1	8/2009	Blondeel	
2010/0084418	A1	4/2010	Reinsel et al.	
2010/0147869	A1	6/2010	Iliffe et al.	
2010/0170915	A1	7/2010	Reinsel et al.	
2011/0180562	A1	7/2011	Reinsel et al.	
2011/0226797	A1	9/2011	Reinsel et al.	
2012/0036724	A1*	2/2012	Walters	30/340
2012/0047744	A1	3/2012	Walters	
2012/0080444	A1	4/2012	Smith et al.	
2012/0110746	A1	5/2012	Allard Serrano et al.	
2012/0145734	A1	6/2012	Walters	
2012/0145735	A1	6/2012	Erickson et al.	
2012/0145736	A1	6/2012	Walters et al.	
2013/0032609	A1	2/2013	Righetti et al.	
2013/0043272	A1	2/2013	Oakes	
2013/0126548	A1	5/2013	Pourian et al.	
2013/0134211	A1	5/2013	Linkel	
2013/0152406	A1	6/2013	McFarland	
2013/0193157	A1	8/2013	Jongen et al.	
2014/0069930	A1	3/2014	Oakes	
2014/0117036	A1	5/2014	Smith et al.	
2014/0191024	A1	7/2014	Wnek et al.	
2014/0299656	A1	10/2014	Wintermute	
2015/0001235	A9	1/2015	Smith	
2015/0028045	A1	1/2015	Oakes et al.	
2015/0028046	A1	1/2015	Oakes et al.	
2015/0041363	A1	2/2015	Freeman et al.	
2015/0041484	A1	2/2015	Oakes	
2015/0048108	A1	2/2015	Borke	

FOREIGN PATENT DOCUMENTS

CN	101495015	A	7/2009	
DE	7033238	U1	11/1970	
DE	7127677	U	11/1971	
DE	3151268		7/1983	
DE	4139938		6/1993	
DE	9316566	U1	1/1994	
DE	19906369		2/2000	
DE	202005013647	U1	7/2006	
EP	257109	*	3/1988	A47G 21/06
EP	0286538	A1	10/1988	
EP	0856272	A2	1/1999	
EP	1022107	A1	7/2000	
EP	1217923	B1	9/2003	
EP	1358827	A2	11/2003	
EP	1213985	B1	6/2004	
EP	1514497	A1	3/2005	
EP	1719438	A1	11/2006	
EP	1864596	A2	12/2007	
FR	2889507	A1	2/2007	
JP	06-121727	A	5/1994	
JP	JH06121727	A	5/1994	
JP	08011934	A	1/1996	
JP	08047440	A	2/1996	
JP	3042582	U	10/1997	
JP	09-294662	*	11/1997	A47G 21/10
JP	2000-202851	A	7/2000	
JP	2001354214	A	12/2001	
JP	2004-261337	A	9/2004	
JP	2007319493	A	12/2007	
KR	2019910008085		10/1991	
KR	1020090071515	A	7/2009	
KR	100954569	B1	4/2010	
TW	M287639	U	2/2006	
TW	M293720	U	7/2006	
WO	01/05280	A1	1/2001	
WO	01/05281	A1	1/2001	
WO	01/68492	A1	9/2001	
WO	2004/028309	A1	4/2004	
WO	2007/049982	A1	5/2007	
WO	2007/012606	A1	11/2007	
WO	2008/058187	A2	5/2008	
WO	2009137367	A2	11/2009	

OTHER PUBLICATIONS

JP09-294662 english translation Nov. 1997,Kamishina, Masashi A47G021/10.*

International Search Report and the Written Opinion of the International Search Authority dated Feb. 9, 2012.

International Search Report and Written Opinion for PCT/US2011/044931 dated Feb. 28, 2012.

International Search Report and Written Opinion for PCT/US2011/044934 dated Mar. 6, 2012.

International Search Report and Written Opinion for PCT/US2011/058767 dated Feb. 29, 2012.

International Search Report and Written Opinion for PCT/US2011/064057 dated Feb. 29, 2012.

International Search Report and Written Opinion for PCT/US2011/058329 dated Feb. 29, 2012.

Peel Adhesion for Single Coated Pressure-Sensitive Tapes 180 Angle, Aug. 1989, pp. 21-22.

Tack Rolling Ball, Aug. 1989, pp. 29-30.

Holding Power of Pressure-Sensitive Tape, Aug. 1989, pp. 31-33.

European Patent Report 06009258.2, dated Jul. 24, 2006, five pages, Munich, Germany.

International Search Report and Written Opinion for PCT/US07/83752, dated Mar. 11, 2008, ten pages, European Patent Office, Munich, Germany.

Partial International Search Report for PCT/US2007/083922, dated Jul. 8, 2008, two pages.

European Search Report for EP 08 014 387.8 dated Nov. 11, 2008, two pages, European Patent Office, Munich, Germany.

International Search Report and Written Opinion for PCT/US2007/083922, dated Nov. 17, 2008, 13 pages, European Patent Office, Rijswijk, Netherlands.

International Search Report and Written Opinion for PCT/US2009/059915, dated Feb. 3, 2010, 13 pages, European Patent Office, Munich, Germany.

Office Actions for U.S. Appl. No. 11/556,808, filed Nov. 6, 2006.

Office Actions for U.S. Appl. No. 11/415,836, filed May 2, 2006.

Office Actions for U.S. Appl. No. 11/936,401, filed Nov. 7, 2007.

Office Action for U.S. Appl. No. 12/349,203, filed Jan. 6, 2009.

Supplementary European Search Report dated Sep. 25, 2013 for Application No. 11793088.3.

International Searching Authority, "International Search Report and Written Opinion for PCT/US2014/047463", dated Nov. 26, 2014, 22 pages, Korean Intellectual Property Office, South Korea.

International Searching Authority, "International Search Report and Written Opinion for PCT/US2014/050166", dated Nov. 20, 2014, 11 pages, Korean Intellectual Property Office, South Korea.

International Searching Authority, "International Search Report and Written Opinion for PCT/US2014/050169", dated Jan. 9, 2015, 11 pages, Korean Intellectual Property Office, South Korea.

International Searching Authority, "International Search Report and Written Opinion for PCT/US2014/051632", dated Dec. 3, 2014, 9 pages, Korean Intellectual Property Office, South Korea.

International Searching Authority, "International Search Report and Written Opinion for PCT/US2014/051639", dated Dec. 9, 2014, 9 pages, Korean Intellectual Property Office, South Korea.

(56) **References Cited**

OTHER PUBLICATIONS

International Search Report and Written Opinion for PCT/US2010/000051, dated Aug. 16, 2010, 6 pages.

* cited by examiner

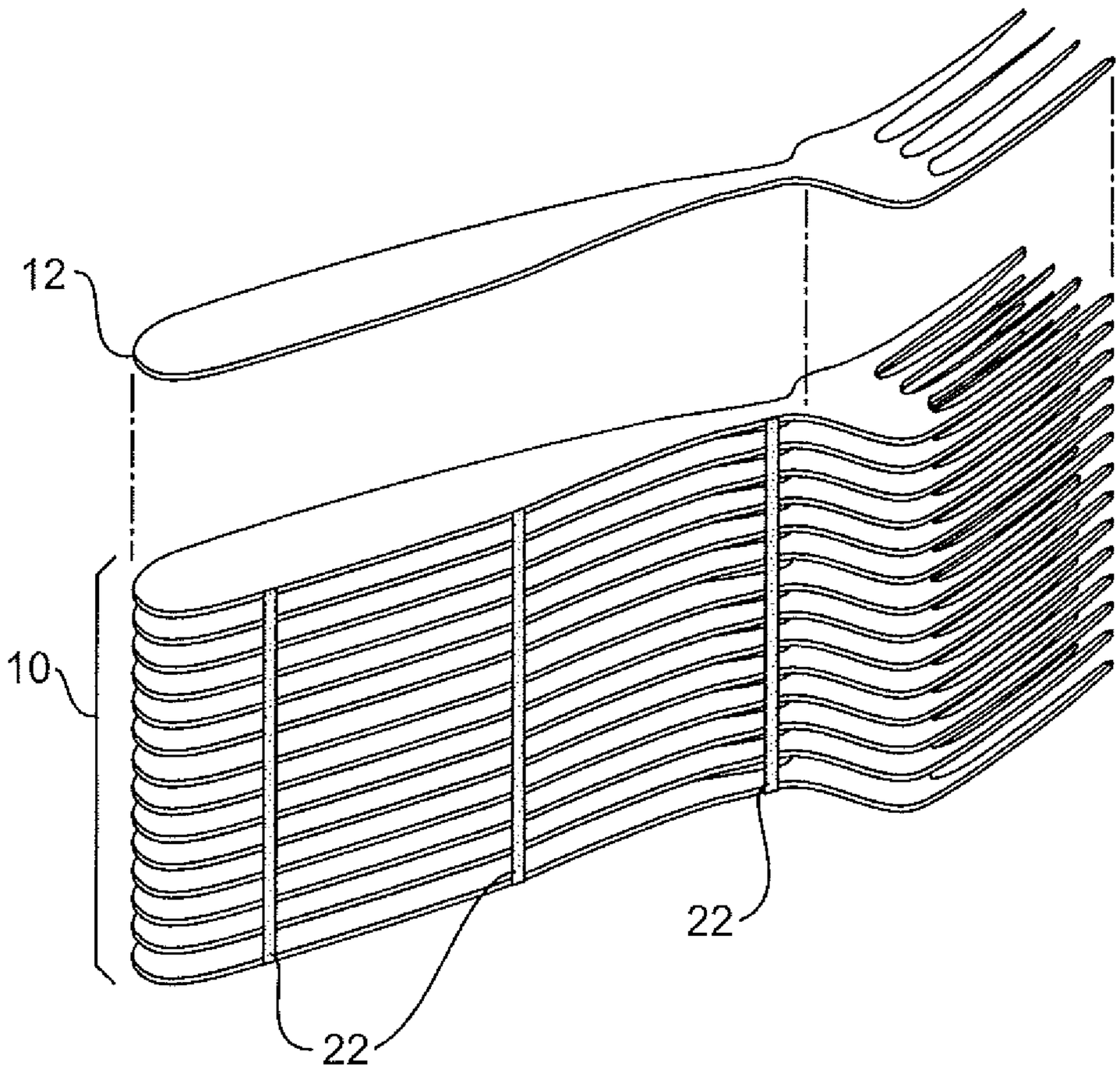


FIG. 1

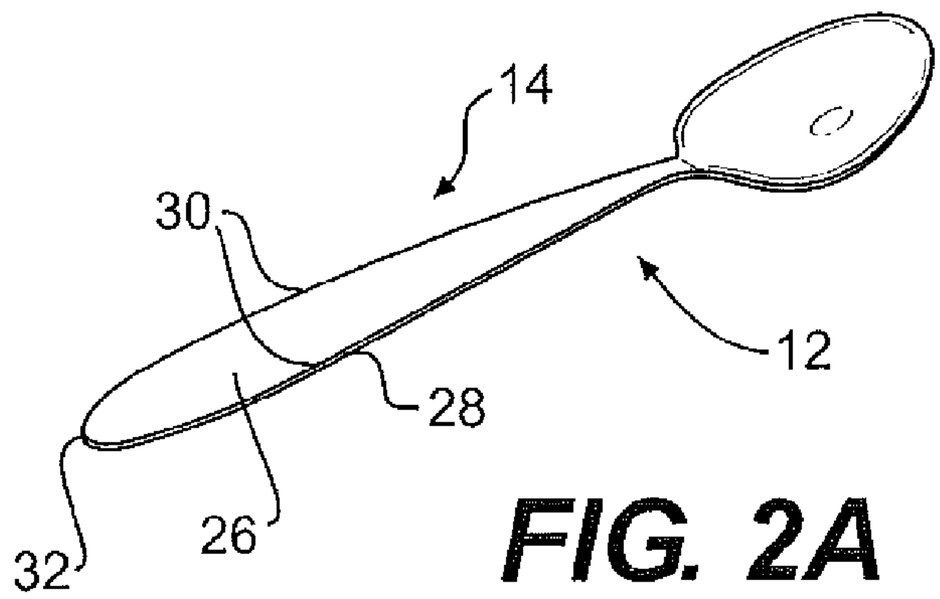


FIG. 2A

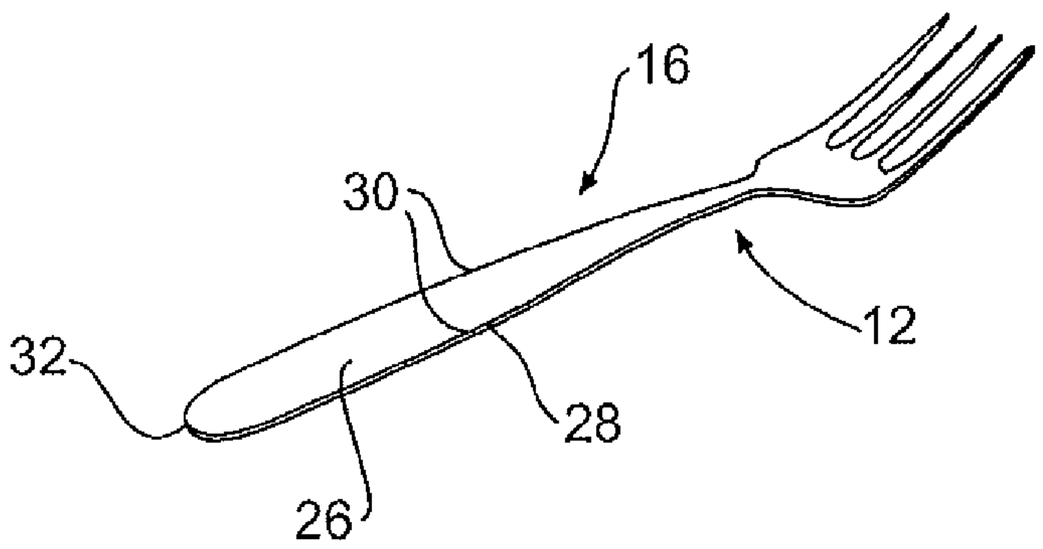


FIG. 2B

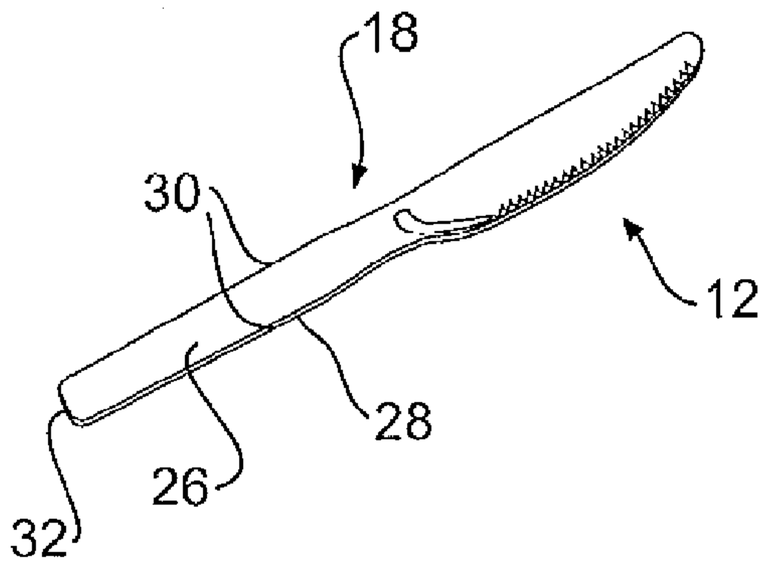


FIG. 2C

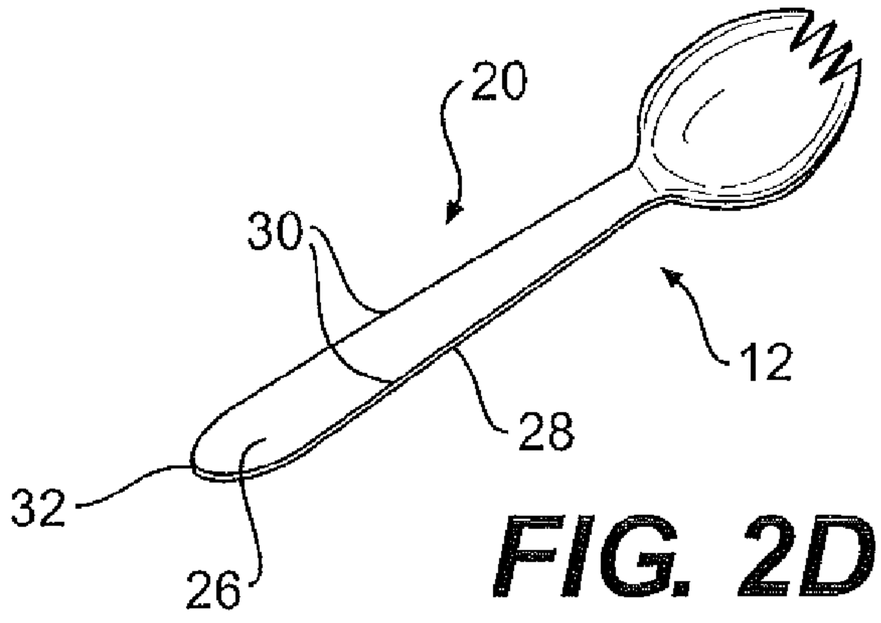


FIG. 2D

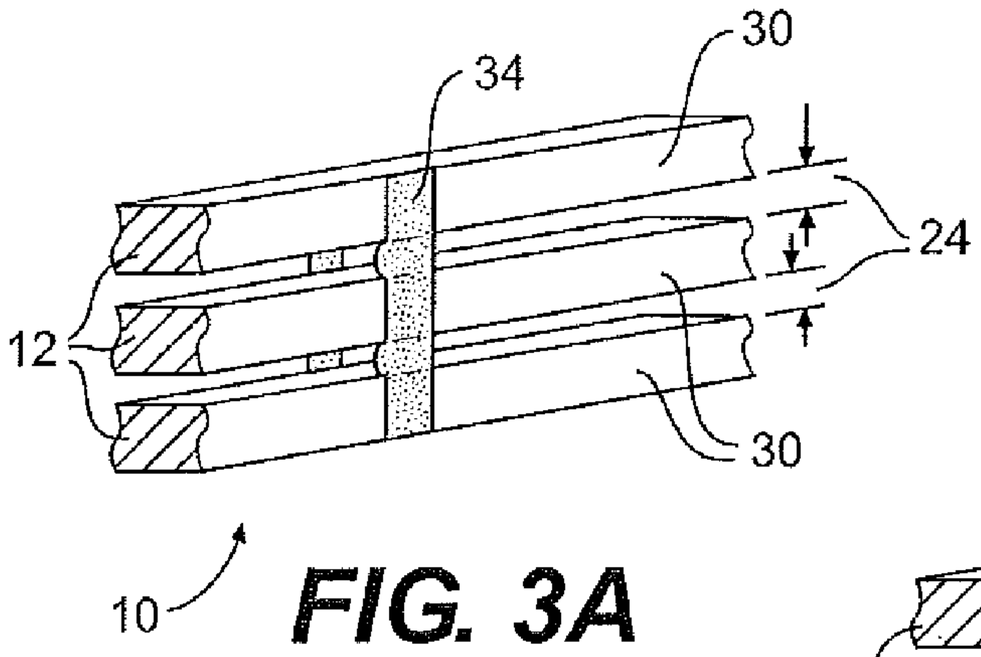


FIG. 3A

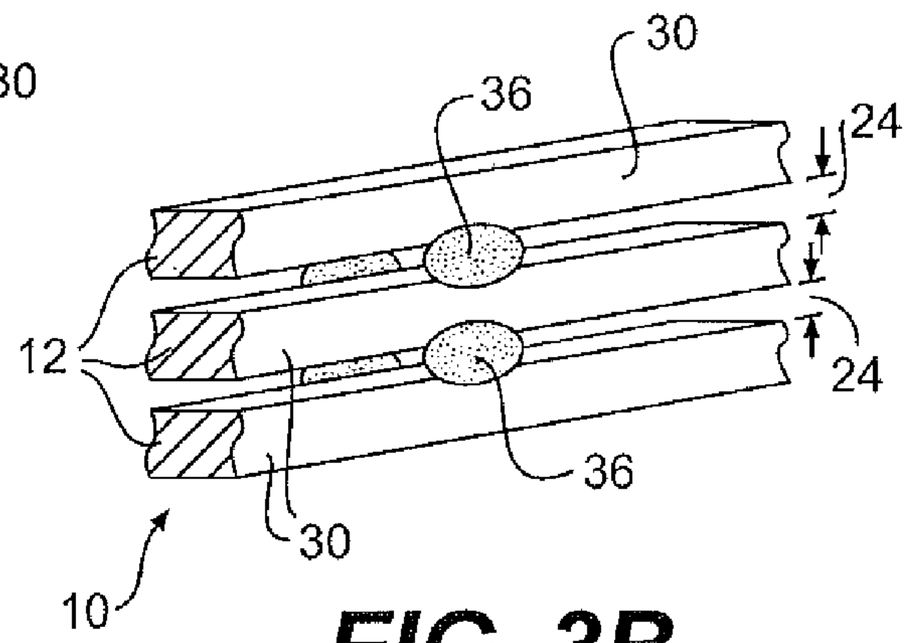


FIG. 3B

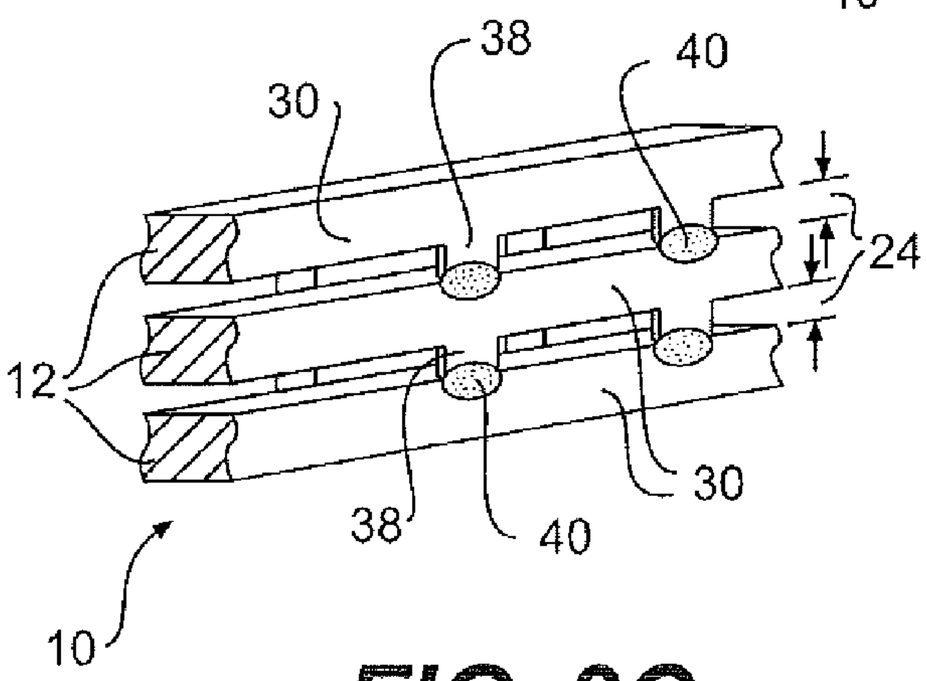


FIG. 3C

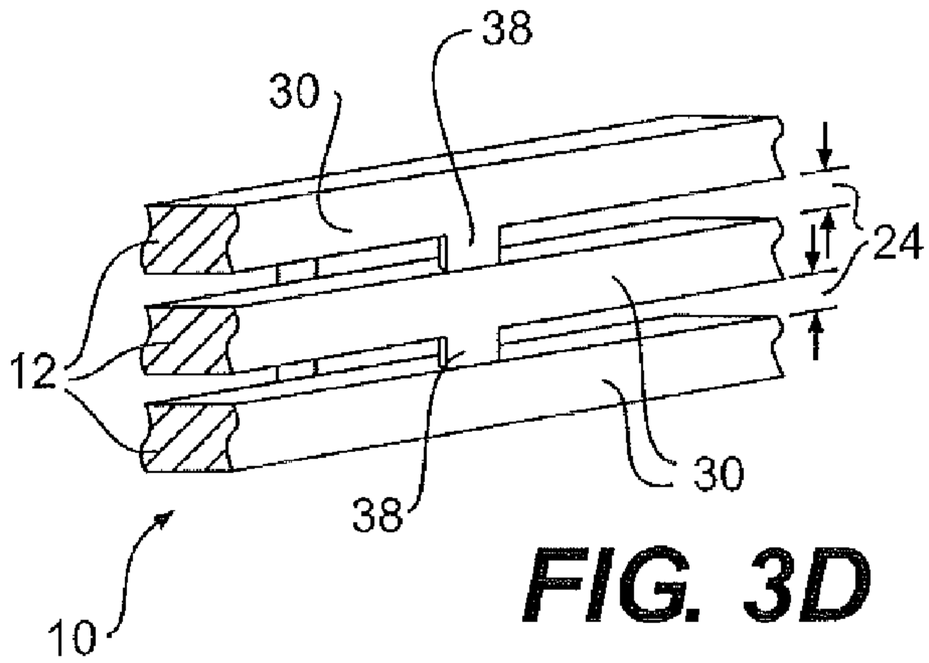


FIG. 3D

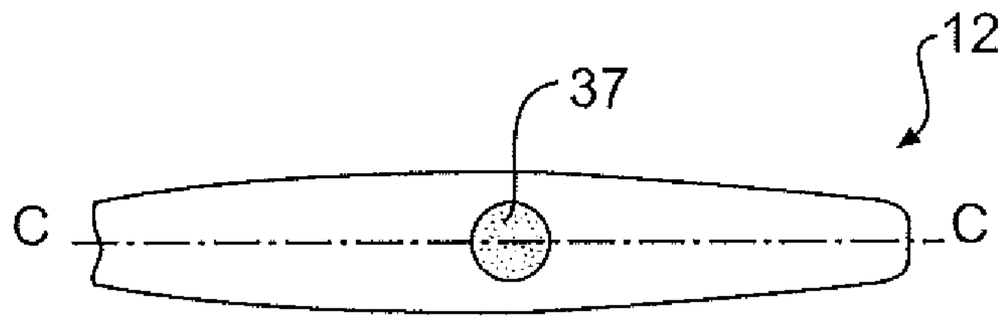


FIG. 3E

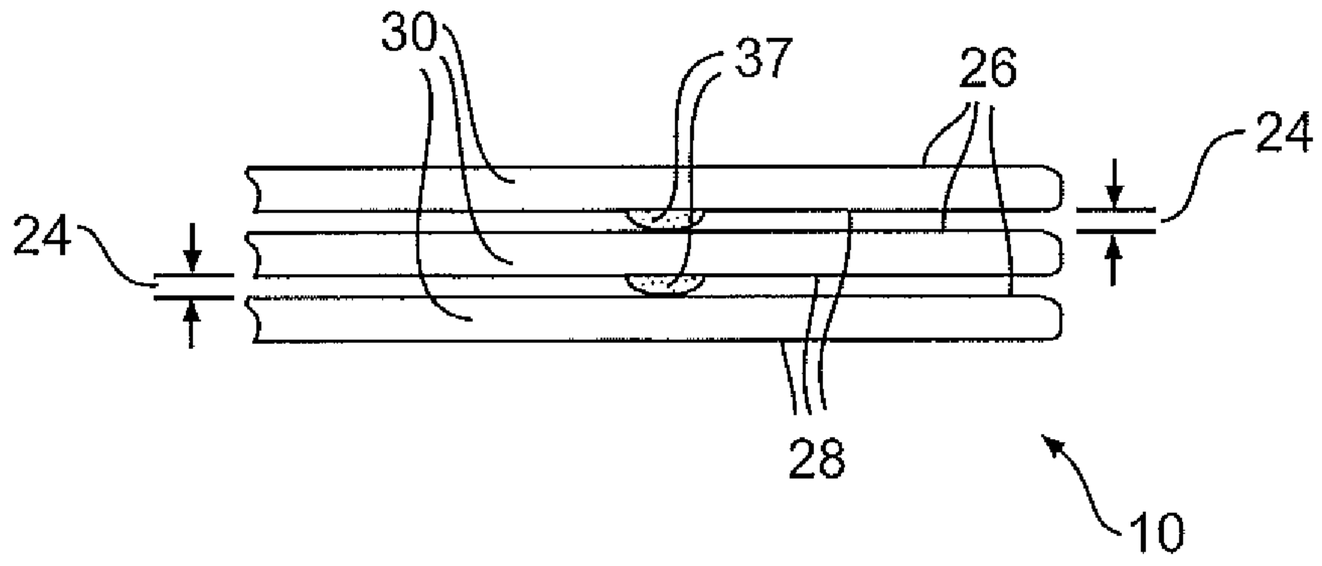


FIG. 3F

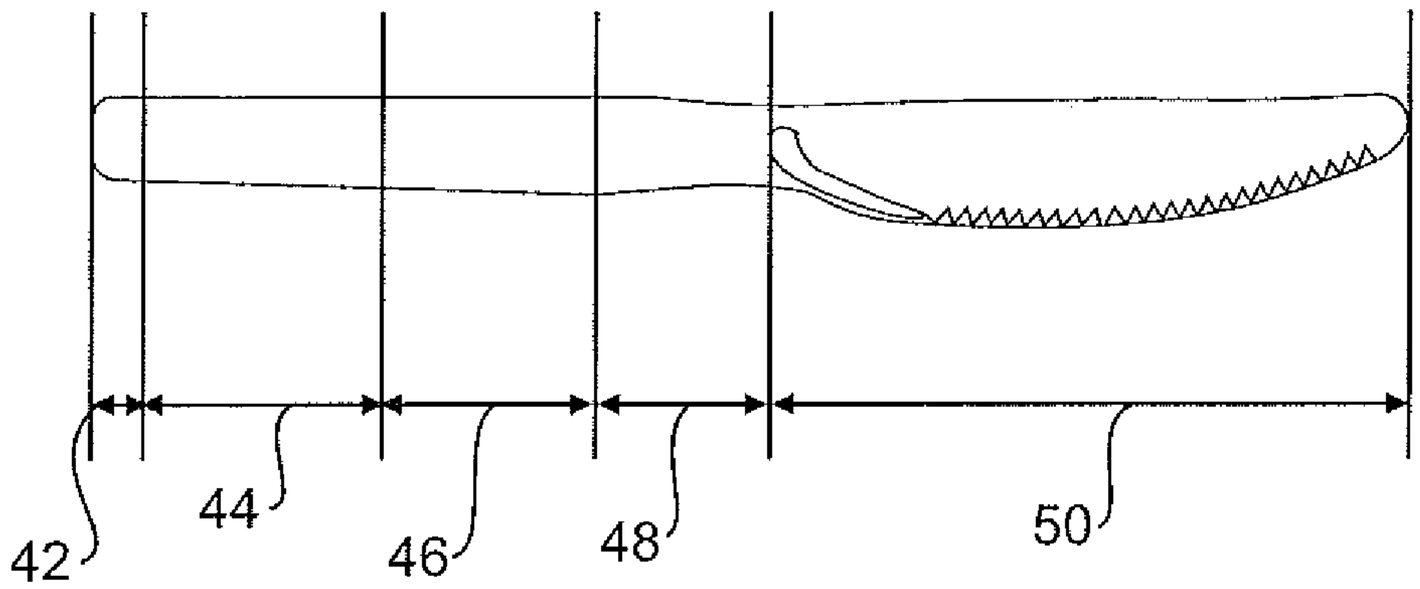


FIG. 4

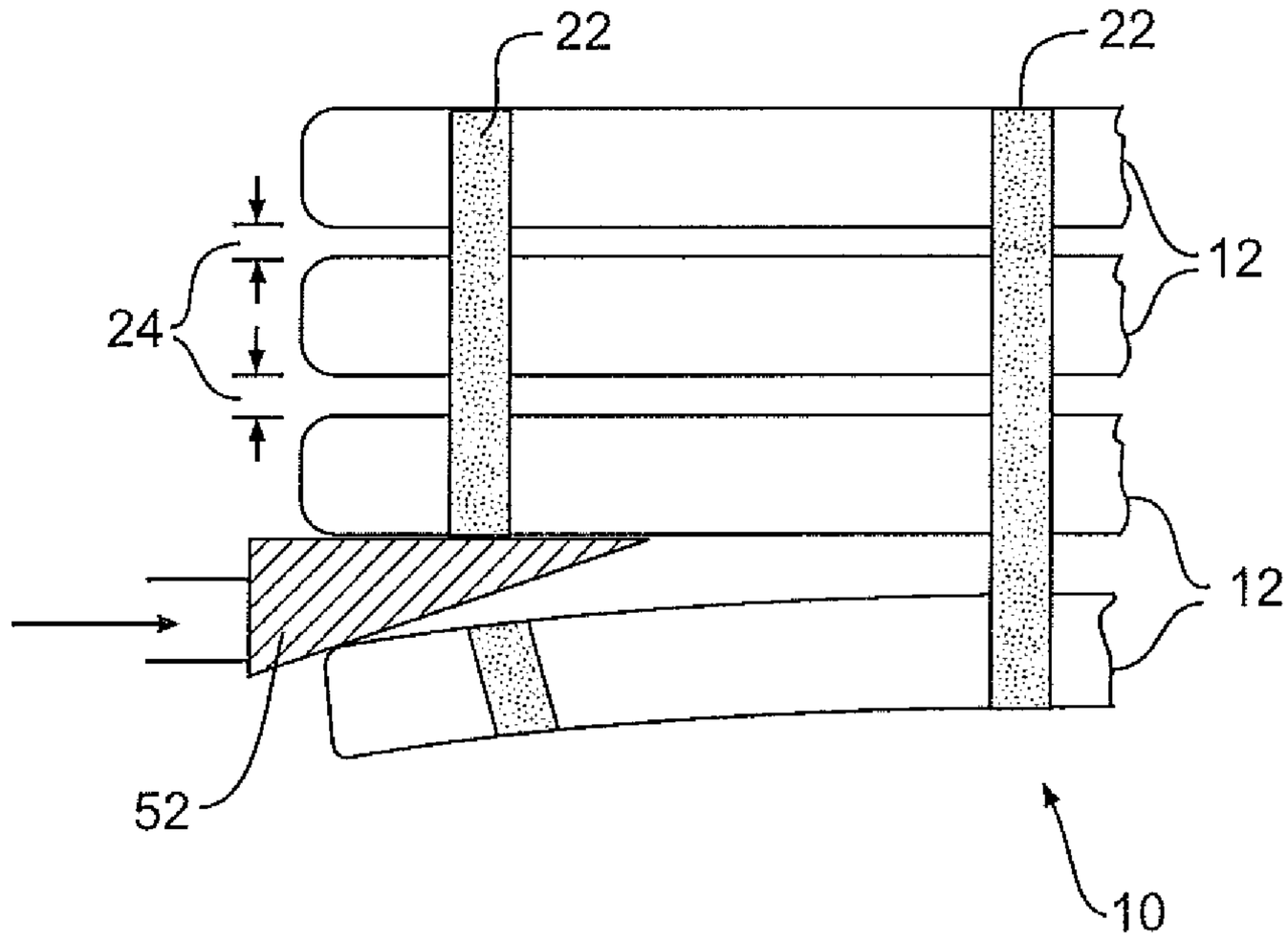


FIG. 5

SYSTEM AND METHOD FOR HOLDING CUTLERY TOGETHER

CROSS-REFERENCE TO RELATED APPLICATION

This application claims priority to U.S. Provisional Patent Application No. 61/352,581 filed Jun. 8, 2010, the disclosure of which is incorporated herein in its entirety by this reference.

FIELD OF THE DISCLOSURE

The present disclosure relates to a system and method for holding disposable cutlery together. In particular, the present disclosure relates to a module of disposable cutlery and methods for forming and dispensing disposable cutlery from the module.

BACKGROUND

It may be desirable to provide disposable cutlery, such as multiple utensils, for example, spoons, forks, knives, and sporks, in a configuration where the utensils are secured in groups of more than one utensil. Such a configuration may serve to save space in the packaging and storing of multiple utensils. Additionally, such a configuration may enhance the efficiency of loading a utensil dispenser. In particular, when providing utensils to patrons via a utensil dispenser, the provider may need to load the single utensils one-at-a-time into the utensil dispenser, a process that may be tedious and inefficient. Further, loading the utensils in such a manner may not result in reliable one-at-a-time dispensing, for example, if the utensils are not loaded properly.

It may also be desirable to provide secured utensils that do not produce excess waste when used in conjunction with a dispenser. For example, multiple utensils may be secured to each other via a band, wrapper, or other securing device, or they may be provided in a cartridge containing a plurality of like utensils. However, after the band, wrapper, or other securing device is removed from the utensils, such securing device or cartridge will usually be discarded as waste.

It may be desirable to provide utensils that are not prone to flipping or otherwise changing from a desired orientation during either a process of being loaded into a dispenser or a process of being dispensed from a dispenser. For example, during dispensing of a stack of utensils, utensils may have a tendency to flip or rotate as the stack slides within the dispenser, which may lead to jamming the dispenser. This may result in compromising the utility of the dispenser. Additionally, it may be desirable to provide utensils that are capable of being successfully dispensed from a dispenser one-at-a-time.

It may also be desirable to provide a group of secured utensils that can be divided into smaller groups of secured utensils. In particular, some types of banded utensils or cartridges of utensils may not be able to be loaded into an empty dispenser in smaller groups of secured utensils. This drawback may cause problems when, for example, only a few utensils remain in a dispenser and it is anticipated that a large number of utensils will be dispensed in the near future. In such a situation, someone responsible for restocking the dispenser must either wait for the utensils to be dispensed and risk having a delay between the time at which the dispenser is emptied and when it is reloaded with new utensils, or load a portion of a group of secured utensils and discard or store the remaining loose utensils.

Thus, it is desirable to provide a system and method for addressing one or more of the issues discussed above.

SUMMARY

In the following description, certain aspects and embodiments will become evident. It should be understood that the aspects and embodiments, in their broadest sense, could be practiced without having one or more features of these aspects and embodiments. Thus, it should be understood that these aspects and embodiments are merely exemplary.

One aspect of the disclosure relates to a module of disposable cutlery including a plurality of utensils including a formable material, wherein at least two of the utensils are separably coupled to one another via at least one of an adhesive and a common portion of the formable material. For example, the common portion of formable material may include one or more of the following: a portion of formable material formed concurrently with the utensils, via, for example, a molding process such as injection molding; a portion of formable material formed from individual utensils by, for example, softening and/or melting a portion of at least one utensil and allowing the softened and/or melted portion to cool in a configuration such that it separably couples at least two utensils via, for example, welding; or a portion of formable material formed separately and before (or after) softening and/or melting, introduced to at least two utensils such that, upon cooling, the material separably couples at least two utensils.

Another aspect of the disclosure relates to a method of securing a plurality of utensils to one another to form a module of cutlery. At least two of the utensils comprise a formable material. The method includes arranging the plurality of utensils such that the utensils are positioned adjacent to one another. The method further includes separably coupling at least two of the utensils that are positioned adjacent to one another via at least one of applying an adhesive to at least one of the two utensils, or providing a common portion of the formable material that separably couples the two utensils to one another, or both.

A further aspect of the disclosure relates to a method for dispensing a utensil from a module of cutlery. The method includes decoupling at least one utensil from the module by overcoming an adhesive bond when the utensils are coupled to one another via adhesive, or breaking a common portion when the utensils are coupled to one another via the common portion. The method further includes dispensing the at least one decoupled utensil.

Additional aspects of the disclosure will be set forth in part in the description which follows, or may be learned by practice of the disclosed exemplary embodiments.

Aside from the structural and procedural arrangements set forth above, the embodiments could include a number of other arrangements, such as those explained hereinafter. It is to be understood that both the foregoing description and the following description are exemplary only.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings, which are incorporated in and constitute a part of this description, illustrate several exemplary embodiments and together with the description, serve to explain principles of the embodiments. In the drawings,

FIG. **1** is a schematic perspective view of an exemplary embodiment of a module of cutlery.

FIG. **2**A is a schematic perspective view of an exemplary spoon.

FIG. **2**B is a schematic perspective view of an exemplary fork.

FIG. **2**C is a schematic perspective view of an exemplary knife.

FIG. **2**D is a schematic perspective view of an exemplary spark.

FIG. **3**A is a schematic perspective view of exemplary utensils coupled to one another via exemplary continuous coupling strips.

FIG. **3**B is a schematic perspective view of exemplary utensils coupled to one another via exemplary intermittent couplings.

FIG. **3**C is a schematic perspective view of exemplary utensils coupled to one another via exemplary protrusions.

FIG. **3**D is a schematic perspective view of exemplary utensils utilizing exemplary protrusions as a spacing feature.

FIG. **3**E is a schematic plan view of an exemplary utensil including an exemplary coupling bead.

FIG. **3**F is a schematic side view of exemplary utensils coupled by exemplary coupling beads.

FIG. **4** is a schematic plan view of an exemplary utensil identifying different regions of the utensil.

FIG. **5** is a schematic side view of an exemplary decoupler decoupling an exemplary utensil from an exemplary module of utensils.

DESCRIPTION OF EXEMPLARY EMBODIMENTS

Reference will now be made in detail to exemplary embodiments. Wherever possible, the same reference numbers are used in the drawings and the description to refer to the same or like parts.

FIG. **1** shows a schematic perspective view of an exemplary embodiment of a module **10** of disposable cutlery. Module **10** comprises a plurality of utensils **12**, which appear in a stacked configuration here, but which may be arranged in other configurations. Module **10** may include at least one of a spoon **14**, a fork **16**, a knife **18**, and a spork **20** (see FIGS. **2**A-**2**D), or any combination thereof. Module **10** may be formed with as few as two utensils **12**, as many as 10, 15, 20, or 30 utensils **12**, or more, as any number of utensils **12** is contemplated for module **10**.

In FIGS. **3**A-**3**F, exemplary configurations for coupling utensils **12** to one another are shown. Exemplary couplers **22** function to couple at least two utensils **12** to one another. For example, as shown in FIG. **3**A, couplers **22** may be in the form of continuous coupling strips **34**. The couplers **22** may also be formed in discontinuous or intermittent coupling areas **36**, for example, as shown in FIGS. **3**B and **3**C. Exemplary discontinuous or intermittent coupling areas **36** may couple as few as two utensils **12**, as many as 10, 15, 20, 30, or 100 or more utensils **12**, as any number of utensils **12** is contemplated for module **10**. According to some embodiments, in addition to couplers **22**, utensils **12** of a module **10** may also include, for example, a band, tie, string, or similar device around the utensils **12** of a module **10** to assist in orienting or securing module **10**.

According to some embodiments, the couplers **22** may be formed via at least one of an adhesive and a common portion of a formable material, of which the utensils are made, regardless of whether the continuous strip configuration or the discontinuous or intermittent configuration—or both—are used. Additionally, in some embodiments, couplers **22** may be applied to one or both sides **30** of one or more utensils **12**. If adhesive is used, it may be applied in one or more continuous coupling strips **34** that couple the utensils **12** to one another and form module **10**, for example, as shown in FIG. **1**. The thickness of the coupling strips **34** may vary depending, for example, on the specific type of adhesive and/or the number of strips **34** used. The coupling strips **34** may be applied perpendicular to utensils **12** or at an oblique angle. Where multiple strips **34** are used, strips **34** need not have the same orientation, and instead may overlap each other or form a shape or pattern, for example, a decorative and/or branding pattern.

The exemplary formable material described herein may include, for example, plastic, combinations of plastics, or combinations of plastics and other materials suitable for use as disposable or reusable cutlery. For example, the formable material may include one or more of polystyrene, polyethylene, and polypropylene.

Adhesive may also be applied in a discontinuous or intermittent manner. For example, adhesive deposits may be placed in one or more of the gaps **24** between the utensils **12** in a module **10**, or may be placed elsewhere, for example, between the overlapping surfaces of two adjacent utensils **12** in the module **10** (see, e.g., FIGS. **3**E and **3**F). The adhesive deposits may align vertically, but can be applied in any orientation, including a pattern or a random disbursement. Also, adhesive deposits may be used concurrently with coupling strips **34** or additional methods of coupling utensils **12** to one another.

An example of an additional method of coupling is welding, including spot welding, ultrasonic welding, vibration welding, and any other welding technique that may be suitable for coupling two utensils **12**. Another example is soldering. Yet another example is hot melting. Any form of coupling at least two utensils **12** together by forming a common portion of formable material between the utensils **12** may be used. For example, this may be accomplished by applying heat to one or more of utensils **12** to cause the formable material of at least one utensil **12** to soften or melt. Upon cooling, the softened or melted material may form a common portion of formable material that couples two or more utensils to one another. In another example, forming a common portion of formable material may be accomplished by introducing additional formable material to a module **10** of utensils **12** and softening or melting the additional formable material. Upon cooling, the additional formable material will couple at least two utensils **12** via a common portion of formable material. Similarly, forming a common portion of formable material may be accomplished by introducing additional formable material to a module **10** of utensils **12**, softening or melting one or more portions of the module **10**, and applying the additional formable material such that it couples a plurality of utensils **12** when the melted portion or portions harden. According to some embodiments, the common portion of formable material may be formed in an integral manner, together with utensils **12**, for example, via a molding process such as form molding or injection molding, where the common portion and the utensils **12** of module **10** are formed during the same molding process.

Referring to FIG. **2**A, it shows a schematic perspective view of an exemplary spoon **14** that may be included as a utensil **12** in module **10**. Spoon **14** has a top face **26** and a bottom face **28**. Spoon **14** also has two sides **30** and an end **32**. Top face **26**, bottom face **28**, sides **30**, and end **32** may each have any number of profiles, including, for example, flat, straight, shaped, curved, or tapered. In some exemplary embodiments, spoon **14** is shaped such that a plurality of spoons **14** may be stacked on top of one another. In such a

stacked configuration, sides **30** of one spoon **14** may align vertically with sides **30** from an adjacent utensil **12** (e.g., another spoon **14**).

Referring to FIG. **2**B, it shows a schematic perspective view of an exemplary fork **16** that may be included as a utensil **12** in module **10**. Fork **16** has a top face **26** and a bottom face **28**. Fork **16** also has two sides **30** and an end **32**. Top face **26**, bottom face **28**, sides **30**, and end **32** may each have any number of profiles, including, for example, flat, straight, shaped, curved, or tapered. In some exemplary embodiments, fork **16** is shaped such that a plurality of forks **16** may be stacked on top of one another. In such a stacked configuration, sides **30** of one fork **16** may align vertically with sides **30** from an adjacent utensil **12** (e.g., another fork **16**).

Referring to FIG. **2**C, it shows a schematic perspective view of an exemplary knife **18** that may be included as a utensil **12** in module **10**. Knife **18** has a top face **26** and a bottom face **28**. Knife **18** also has two sides **30** and an end **32**. Top face **26**, bottom face **28**, sides **30**, and end **32** may each have any number of profiles, including, for example, flat, straight, shaped, curved, or tapered. In some exemplary embodiments, knife **18** is shaped such that a plurality of knives **18** may be stacked on top of one another. In such a stacked configuration, sides **30** of one knife **18** may align vertically with sides **30** from an adjacent utensil **12** (e.g., another knife **18**).

Referring to FIG. **2**D, it shows a schematic perspective view of an exemplary spork **20** that may be included as a utensil **12** in module **10**. Spork **20** has a top face **26** and a bottom face **28**. Spork **20** also has two sides **30** and an end **32**. Top face **26**, bottom face **28**, sides **30**, and end **32** may each have any number of profiles, including, for example, flat, straight, shaped, curved, or tapered. In some exemplary embodiments, spork **20** is shaped such that a plurality of sporks **20** may be stacked on top of one another. In such a stacked configuration, sides **30** of one spork **20** may align vertically with sides **30** from an adjacent utensil **12** (e.g., another spork **20**).

FIG. **3**A shows a portion of a plurality of utensils **12** stacked in an exemplary manner such that sides **30** are generally aligned. Coupling strip **34** couples utensils **12** to one another to form module **10**. In FIG. **3**A, coupling strip **34** is shown as a continuous strip. However, coupling strip **34** also may be applied in a discontinuous or intermittent manner. FIG. **3**A also shows coupling strip **34** substantially perpendicular to sides **30**, such that coupling strip **34** would appear to align substantially vertically when the module **10** of utensils **12** is oriented in an upright position. However, coupling strip **34** may be applied at any other angles and/or other lengths that couple at least two utensils **12** to one another.

Exemplary coupling strip **34** may comprise an adhesive, a common portion of formable material, or a combination of both. If coupling strip **34** is an adhesive, it can include any combination of adhesives known in the art. For example, such types of adhesives may include, but are not limited to, hot melt adhesive, epoxy, glue, resin, and cement. According to some embodiments, adhesive may be applied in a configuration that secures utensils **12** of a module **10** to one another, but which allows a user and/or a dispenser to break the bond between adjacent utensils **12**. For example, a thinner coupling strip **34** may be used with stronger adhesives while a relatively weaker adhesive may be applied in relatively thicker coupling strips **34**.

According to some embodiments, coupling strip **34** may include a common portion of the formable material that forms utensils **12**. For example, the common portion may be formed by softening or melting a portion of at least one side **28** of a utensil **12** and allowing the softened or melted portion to cool in a configuration such that it couples the utensil **12** with at least one adjacent utensil **12**. The common portion may be formed, for example, by introducing an additional piece of formable material and softening or melting some or all of that piece such that upon cooling it couples at least two utensils **12** to one another. The common portion may further be formed by introducing an additional piece of formable material, softening or melting a portion of one or more utensils **12**, and attaching the additional piece to the softened or melted portion or portions of the utensils **12**, such that upon cooling at least two utensils **12** are coupled to one another. Softening or melting the formable material may be accomplished by any method known in the art, including but not limited to the application of heat, electricity, and/or friction. According to some embodiments, the common portion of formable material may be formed in an integral manner, together with utensils **12**, for example, via a molding process such as form molding or injection molding, where the common portion and the utensils **12** of module **10** are formed during the same molding process.

In some embodiments, the coupling strip **34** may contact at least one of the top face **26**, bottom face **28**, and one of sides **30** of a utensil **12** to be coupled. When coupling strip **34** contacts at least one side **30**, coupling strip **34** may also extend into the gaps **24** between each utensil **12**, and may also come into contact with the top face **26** or bottom face **28** of one or more utensils.

FIG. **3**B shows a plurality of exemplary utensils **12** stacked such that sides **30** are generally aligned. Coupling areas **36** couple at least two utensils **12** to one another. Coupling areas **36** may include adhesive deposits, common portions of formable material, or a combination of the two. If adhesive deposits are utilized, the adhesive may be any combination of adhesives known in the art, including, but not limited to, hot melt glue, epoxy, glue, resin, and cement. The adhesive deposits may be applied in any configuration that serves to couple at least two of the utensils **12**. The adhesive deposits may be configured such that a user and/or a dispenser can break the adhesive bonds and separate a utensil **12** from module **10**. The adhesive deposits may be located such that at least one deposit contacts the sides **30** of two adjacent utensils **12**. The adhesive deposits may also be located between the utensils **12**, such that the adhesive deposit contacts the top face **26** of one utensil and the bottom face **28** of another utensil **12**. If the adhesive deposits are positioned between the utensils **12**, the size, shape, and material make-up of the adhesive deposit may influence the size of the gaps **24** between adjacent utensils **12**.

Coupling areas **36** may also include common portions of formable material shared by at least two adjacent utensils **12**. In some embodiments, the common portion may be formed by softening or melting a portion of at least one side **30** of a utensil **12** and allowing the softened or melted portion to cool in a configuration such that it couples the utensil **12** with at least one adjacent utensil **12**. According to some embodiments, the common portion may be formed by introducing additional pieces of formable material and softening or melting some, or all, of those pieces such that upon cooling at least two utensils **12** are coupled to one another. The common portion may further be formed by introducing one or more additional pieces of formable material, softening or melting a portion of one or more utensils **12**, and attaching the additional piece to the softened or melted portion or portions of the utensils **12**, such that upon cooling

the at least two utensils **12** are coupled. The amount of formable material may be varied to control the gaps **24** between adjacent utensils **12**. Softening or melting the formable material may be accomplished by any method known in the art, including but not limited to the application of heat, electricity, friction, or a combination thereof. The common portions of formable material may be configured such that a user and/or a dispenser can separate the utensils **12** from one another.

FIG. **3**C shows a plurality of exemplary utensils **12** stacked such that sides **30** are generally aligned. According to some embodiments, the utensils **12** may have at least one protrusion **38** made from formable material. The protrusions **38** may be used to facilitate coupling adjacent utensils **12** to one another. The protrusions **38** may be provided in any number of shapes, or in a shape that at least partially spans the gaps **24** between utensils **12**. For example, the protrusions **38** may be located on the sides **30**, the top face **26**, or the bottom face **28** of the utensils **12**. The utensils **12** may be coupled by protrusion coupling areas **40**. For example, protrusion coupling areas **40** may include adhesive and/or a common portion of formable material.

According to some embodiments, at least two utensils **12** may be coupled via adhesive deposits on the protrusions **38**. The adhesive deposits may be any combination of adhesives known in the art, including, but not limited to, hot melt glue, epoxy, glue, resin, and cement. For example, the adhesive deposits may be applied to the protrusions **38** such that at least two utensils **12** are coupled to one another.

According to some embodiments, at least two utensils **12** may be coupled via a common portion of formable material that includes at least one protrusion **38**. Coupling may be accomplished by softening or melting a portion of formable material of one or more of utensils **12** such that upon cooling, the utensils **12** become coupled to one another. For example, the side **30** of a utensil **12** may be softened or melted such that it joins with protrusion **38** upon cooling, or the protrusion **38** may be softened or melted such that it joins with a portion of a utensil **12** upon cooling. Of course, the protrusion **38** and the side **30** of a utensil **12** may both be softened or melted such that they join each other upon cooling. According to some embodiments, the common portion of formable material may be formed in an integral manner, together with utensils **12**, for example, via a molding process such as form molding or injection molding, where the common portion and the utensils **12** of module **10** are formed during the same molding process. According to some embodiments, two protrusions **38** may be aligned such that the two protrusions **38** combine after softening or melting to form the common portion of formable material.

Softening or melting the formable material may be accomplished by any method known in the art, including but not limited to the application of heat, electricity, friction, or any combination thereof. In some embodiments, the common portions of formable material may be configured such that a user and/or a dispenser may separate the utensils **12** from one another. The protrusions **38** may be formed such that upon decoupling, the protrusion **38** completely detaches from previously-coupled utensils **12**. Alternatively, the protrusion **38** may be formed such that upon decoupling, it remains attached to one of the previously-coupled utensils **12**.

Protrusions **38** may be formed in various shapes and sizes. Exemplary shapes include, without limitation, at least one of a square, a rectangle, a triangle, a circle, a cylinder, a sphere, a cube, a box, a pyramid, a star, and the like. The chosen shape can provide a formable surface area configured such that after coupling—either by adhesive, by forming a common portion of formable material, or both—the bond may be broken by a user and/or a dispenser. According to some embodiments, protrusions **38** are shaped such that they also assist in aligning or maintaining the alignment of the stack of utensils **12** before application of an adhesive or formation of a common portion of formable material.

FIG. **3**D shows a plurality of exemplary utensils **12** stacked such that the sides **30** are generally aligned. In some embodiments, the protrusions **38** may perform a spacing function. For example, the protrusions **38** may be formed at any location on one or more utensils **12**. The protrusions **38** may occupy some amount of space within the gaps **24** between utensils **12**, and may influence the separation between utensils **12**. In some embodiments, one or more utensils **12** may be coupled to one another along one or both sides **30** of the utensils **12**. If the utensils **12** are only coupled along one side **30**, then module **10** may have some degree of flexibility. If the protrusions **38** are provided along one side **30** of the utensils **12**, and the utensils **12** are coupled along the same side **30**, then flexibility of the module **10** may be increased. In some embodiments, the flexibility may be influenced by controlling the size of the gaps **24** between utensils **12**. Likewise, the gaps **24** between utensils **12** may be influenced by the size, shape, and/or location of protrusions **38**. The protrusions **38** may perform a spacing function regardless of whether they are used to couple the utensils **12** to one another.

FIG. **3**E shows an exemplary utensil **12** including a coupling area **36** in the exemplary form of a coupling bead **37** disposed on utensil **12**. In some embodiments, at least one coupling bead **37** may be used to couple a plurality of utensils **12** to form module **10**, as shown in FIG. **3**F. While FIGS. **3**E and **3**F show one coupling bead **37** per utensil **12**, the embodiments should be understood to encompass any number of coupling beads **37** on each utensil **12**. Coupling bead **37** may be configured with its center point on longitudinal axis C. Coupling bead **37** may include adhesive deposits, common portions of formable material, or a combination of the two. If adhesive deposits are utilized, the adhesive may be any combination of adhesives known in the art, including, but not limited to, hot melt glue, epoxy, glue, resin, and cement. The adhesive deposits may be applied in any configuration that serves to couple at least two of the utensils **12**, for example, as shown in FIG. **3**F. The adhesive deposits may be configured such that a user and/or a dispenser can break the adhesive bonds and separate a utensil **12** from module **10**. The adhesive deposits may be located between the utensils **12**, such that the adhesive deposits contact the top face **26** of one utensil and the bottom face **28** of another utensil **12**. If the adhesive deposits are positioned between the utensils **12**, the size, shape, and material make-up of the adhesive deposit may influence the size of the gaps **24** between adjacent utensils **12**.

Coupling beads **37** may also include common portions of formable material shared by at least two adjacent utensils **12**. In some embodiments, the common portion may be formed by softening or melting a portion of a utensil **12** and allowing the softened or melted portion to cool in a configuration such that it couples the utensil **12** with at least one adjacent utensil **12**. According to some embodiments, the common portion may be formed by introducing additional pieces of formable material and softening or melting some, or all, of those pieces such that upon cooling at least two utensils **12** are coupled to one another. Alternatively, the common portion may be formed by softening or melting a portion of one or more utensils **12** and introducing one or

more additional pieces of formable material, configured such that when the at least two utensils **12** cool, they may couple to one another. The amount of formable material may be varied to control the gaps **24** between adjacent utensils **12**. Softening or melting the formable material may be accomplished by any method known in the art, including but not limited to the application of heat, electricity, friction, or a combination thereof. According to some embodiments, the common portion of formable material may be formed in an integral manner, together with utensils **12**, for example, via a molding process such as form molding or injection molding, where the common portion and the utensils **12** of module **10** are formed during the same molding process. The common portions of formable material may be configured such that a user and/or a dispenser can separate the utensils **12** from one another.

FIG. **4** shows a schematic plan view of an exemplary utensil **12** divided into five regions: a handle end region **42**, a first middle region **44**, a second middle region **46**, a third middle region **48**, and a functional end region **50**. According to some embodiments, at least two utensils **12** may be coupled at one or more locations within one or more of the five identified regions. According to some embodiments, the utensils **12** may be coupled along one side **30**. According to some embodiments, the utensils **12** may be coupled along both sides **30**. The coupling locations on each side **30** of the utensils **12** may mirror each other. For example, a utensil **12** may be coupled on both sides **30** at each of the first middle region **44**, the second middle region **46**, and the third middle region **48**. The coupling locations need not mirror each other, however. For example, a utensil **12** may be coupled on one side **30** at first middle region **44** and third middle region **48**, while on the other side **30** the utensil **12** may be coupled at the second middle region **46**. Setting coupling locations at any additional combination of sides **30** and/or regions is within the scope of these embodiments.

FIG. **5** shows a schematic side view of a plurality of utensils **12** coupled by couplers **22**, where one utensil **12** is being decoupled from module **10** via a decoupler **52**. The couplers **22** are shown in a continuous strip configuration, although they may be utilized in other forms, such as those identified in connection with previously described embodiments. For example, the couplers **22** may be formed in discontinuous or intermittent sections. The discontinuous or intermittent sections may couple as few as two utensils **12** or as many as 10, 15, 20, or 100 or more utensils **12**, as any number of utensils **12** is contemplated for a module **10**. The couplers **22** are not limited to continuous or discontinuous/intermittent sections, however. For example, the couplers **22** may be formed via at least one of an adhesive and a common portion of the formable material, regardless of whether the continuous strip configuration or the discontinuous or intermittent configuration—or both—are used.

The exemplary decoupler **52** may be part of, for example, a conventional dispenser. In the exemplary embodiment shown, the decoupler **52** is a generally wedge-shaped tip configured to be inserted into a gap **24** between two utensils **12**. According to some embodiments, however, decoupler **52** does not have a wedge-shaped tip. The size of the decoupler **52** may force the utensils **12** on either side of the decoupler **52** in opposite directions, breaking the bond or bonds (e.g., adhesive bonds and/or bonds formed via a common portion of formable material) between those utensils **12**. According to some embodiments, the tip of the decoupler **52** may apply pressure to the couplers **22** directly, severing the coupler **22** material. According to some embodiments, the decoupler **52** may apply pressure to the couplers **22** directly and may also force the utensils **12** on either side of the decoupler **52** in opposite directions. In other embodiments, the decoupler **52** (e.g., a decoupler without a generally-wedge shaped tip) may apply a force to an individual utensil **12** such that the bond or bonds (e.g., adhesive bonds and/or bonds formed via a common portion of formable material) coupling that utensil **12** to at least one other utensil **12** is/are broken. The decoupler **52** may be operated by direct user input, by user input transformed by a system providing mechanical advantage, or by independent power source such as, for example, an electric motor and/or electric, pneumatic, or hydraulic actuator.

The decoupler **52** is not limited by size or shape. According to some embodiments, the decoupler **52** may include a thin, sharp edge, which is inserted into the gap **24** between utensils **12** and severs the couplers **22** (e.g., FIG. **5**). According to some embodiments, the decoupler **52** may include a clamp-shaped head that partially surrounds one utensil **12** and applies a force that decouples at least one of the utensils **12** from module **10**. In other embodiments, the decoupler **52** may include a round head. In further embodiments, the decoupler **52** may include a partially round head that utilizes a camming action to rotatably decouple one or more utensils **12** from module **10**. The decoupler **52** is similarly not limited in quantity. For example, a decoupler **52** may include a plurality of portions (e.g., head, tip, etc.) that work together or independently to decouple one or more of utensils **12** from a module **10**.

According to some embodiments, the decoupler **52** may be part of a dispenser for dispensing individual utensils **12**. The dispenser may be configured to receive one or more modules **10** of utensils **12**, and may utilize a decoupler **52** to decouple utensils **12** from a module **10**, individually and/or in groups. The dispenser may also hold one or more types of utensils **12**, including one of at least a spoon **14**, a fork **16**, a knife, **18**, and/or a spork **20**.

It will be apparent to those skilled in the art that various modifications and variations can be made to the structures and methodologies described herein. Thus, it should be understood that the invention is not limited to the subject matter discussed in the description. Rather, the present invention is intended to cover modifications and variations.

What is claimed is:

1. A module of cutlery, the module comprising:

more than two utensils comprising a formable material, each of the utensils comprising a handle with a top face, a bottom face, and pair of sides,

wherein the more than two utensils are separably coupled to one another via a unitary coupler in the form of a common portion of the formable material formed along a length of the utensils by softening or melting and by allowing the softened or melted portion to cool so as to stack the top face of a utensil below the bottom face of an adjacent utensil in a substantially parallel configuration.

2. The module of claim **1**, wherein the more than two utensils are stacked.

3. The module of claim **1**, wherein the more than two utensils comprise at least one of a fork, a spoon, a knife, and a spork.

4. The module of claim **1**, wherein the formable material comprises at least one material selected from the group comprising polystyrene, polyethylene, and polypropylene.

5. The module of claim **1**, wherein the common portion is formed from at least one of hot melting, soldering, spot welding, and ultrasonic welding.

6. The module of claim 1, wherein at least one of each pair of utensils comprises at least one protrusion, wherein the at least one protrusion forms the common portion of the formable material.

7. The module of claim 6, wherein the at least one protrusion is configured to at least partially detach from at least one of each pair of utensils.

8. The module of claim 1, wherein the utensils are separably coupled to one another via a plurality of coupling locations.

9. The module of claim 1, further comprising a band configured to assist retaining the more than two utensils to one another to form the module.

10. A module of cutlery, the module comprising:

more than two utensils comprising a formable material, each of the utensils comprising a handle with a top face, a bottom face, and pair of sides,

wherein the more than two utensils are separably coupled to one another via a bonding coupler in the form of a common portion of the formable material formed along a length of the utensil by softening or melting and by allowing the softened or melted portion to cool so as to stack the top face of a utensil below the bottom face of an adjacent utensil in a substantially parallel configuration.

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